

**Guadalupe, San Antonio, Mission, and Aransas Rivers and Mission,
Copano, Aransas, and San Antonio Bays Basin and Bay Area Stakeholder
Committee (GSA BBASC) Meeting**

Friday, September 15, 2017; 10:00 a.m.
GBRA River Annex, Seguin, TX

Meeting Minutes

Members Present

Suzanne Scott, Chair; Dianne Wassenich, Vice-Chair; Jim Bower; Terry Dudley; Julia Carrillo for Roland Ruiz; James Dodson for Ken Dunton; Annie Kellough for Jennifer Ellis; Charlie Flatten; Colin McDonald; Scott Courtney; Milan Michalec; Mike Mecke; Hope Wells for Robert Puente; Doris Cooksey; Con Mims; Tommy Hill; Garrett Engelking; Jennifer Ellis and David Mauk via teleconference.

Public Comment

No public comments were made at this time.

Discussion and Agreement on Agenda

The Agenda includes a discussion and action on meeting rules, updates on two ongoing studies, and a final presentation on one study. The Agenda also features a presentation on the potential listing of freshwater mussels and a discussion on next steps and future funding. Members were in agreement to proceed forward with the agenda as drafted.

Approval of Meeting Minutes

The minutes from the April 6, 2017 meeting were approved by consensus, with corrections.

Discussion and Appropriate Action Regarding the Meeting Rules

At the April 6, 2017 meeting, the BBASC discussed potential changes to the meeting rules. The group reviewed the changes before a vote on amending the rules. The BBASC proposed amending the quorum to 51% of the full membership and allow members to attend and vote during meetings via conference call. For consensus voting, routine items would require 51% of members present and a significant item would require 2/3 of the full voting membership. Another rule change would allow voting by email for items that have been discussed during a conference call meeting. Routine items will consist of approving meeting minutes, voting on new members, and soliciting nominations for vacancies. All other items will be deemed significant. Members approved the changes, including additional changes discussed at the meeting.

Discussion and Appropriate Action Regarding the Reevaluation of Members Representing their Designated Stakeholder Group Despite Change in Profession

Members discussed how to reevaluate members when they are no longer representing their appointed stakeholder group. Dianne Wassenich, Vice-Chair, mentioned that most members resign voluntarily if they are no longer representing their group. Senate Bill 3 specifies that members of the BBASC serve 5 year terms and represent specific

stakeholder groups listed in the rule. Suzanne Scott, Chair, remarked that the membership renewal process that occurred this year was the beginning of a new 5 year term. Chair Scott made the proposal that certain stakeholder groups, such as River Authorities, Groundwater Conservation Districts, Regional Water Planning Group, Municipalities, and Soil & Water Conservation Districts would be required to have a recommendation or nomination from a recognized leader from that stakeholder group. Vice-Chair Wassenich made a motion to add the nomination by chief executive officer or governing board to the GSA BBASC rules. Doris Cooksey seconded that motion. Motion was approved by consensus. The alternate would also need to be in that same organization or representing the stakeholder group. Chair Scott stated that the BBASC would enforce the 5 year terms in the future. 60 days prior to the term expiration, the seat will be opened up for nominations. The current member can reapply for membership if they still represent the stakeholder group. The motion was made and seconded. The motion was approved by the committee. These items will be added to the meeting rules. The issue of the additional river authority representative that was added to the group at the September 27, 2016 meeting was discussed, but the issue was tabled for further discussion at the next meeting.

Briefing of Ongoing GSA BBASC Studies

1) Research and Validation Methodology Framework 2016-2017

- a. Ed Oborny, Biowest, provided a final presentation on the second round of the Environmental Flows Validation study. The data was cumulative across two funding cycles and include several Texas river basins. The study focused on aquatics, floodplain connectivity, and riparian research.
- b. The aquatics portion of the research analyzed fish and macroinvertebrate samples in low and high flow conditions. The study team evaluated universal trends and identified links between fish and macroinvertebrate abundance and flow patterns at multiple sites in several basins. In the Medina River, the team identified either increasing or decreasing flow-ecology relationships for multiple fish species. In the lower portion of the basin and at the Cibolo creek site, relationships between flow and ecology were identified in fish and macroinvertebrates. The team saw the clearest relationship between fluvial fish abundance and flow tiers in the Brazos Basin with changes evident in pre- and post-flood conditions. A relationship was also evident with generalist fish abundance decreasing post-flood. Mr. Oborny proposed that there may be a lag in ecological response based on when larger flows occur. Flooding may reset the system and fish populations may take more time to rebound. The 1 per season flow tier and the pre- and post-flood responses showed the strongest responses between flow and ecology. The team also used historical data as comparison for the current analysis. They also noted, that swift-water fishes showed a response in the Colorado basin with larger pulses, which supported findings from the current study.
- c. The floodplain connectivity portion of the study found that riverine fish and backwater fish vary significantly. The team also noted that the flows required to connect an oxbow changed over the study period. A long-term

monitoring component would help to reevaluate the connection points over time. Overall, the TCEQ standards are sufficient to meet the floodplain connectivity needs.

- d. The riparian component used a different data collection method than the previously funded study. The first round of data collection used a transect method and focused on indicator species, while the current study used a corridor method and analyzed the wider riparian community. The two sites analyzed in this study were Goliad and Gonzales. Overall, the team found that the flow standards are not meeting the needs of the riparian community. In the future, the two collection methods could be combined for a more effective study. In addition, the researchers noted that funding didn't allow for sampling over a full growing season, which many have caused data gaps.
- e. Mr. Oborny spoke broadly about conclusions and the potential applications of this research to validating the environmental flow standards. He stated that the study team developed a methodology that can be used to make informed recommendations for refinement of the adopted standards. The team's methodology is a simple desktop approach that is standardized and incorporates multiple components. The methodology lays out three levels of validation aligned to each ecological component. The four steps to develop recommendations are questions, decisions, flow evaluation, and potential long-term monitoring. Mr. Oborny gave an example of a practical application of this methodology for aquatics with subsistence, base and pulse flows. The BBASC can use any available data if habitat information is available. Other data that may be analyzed in future studies include sediment transport, freshwater mussels, or channel morphology. Mr. Oborny emphasized that future studies could benefit from sampling for a full growing season. Additionally, a long-term monitoring project would be valuable at several sites in this study.
- f. Chair Scott asked whether the goals that the BBASC identifies should be aligned with TCEQ standards or other BBASC groups. Mr. Oborny said that the goals should be local, but be done in conjunction with state agencies. He also emphasized that the goal should be independent of the data. Mike Mecke asked whether invasive species are included in the riparian community data sampling. Mr. Oborny replied that invasives were noted along with native species so they can be tracked over time.

2) Sediment Variability and Nutrient Loading into San Antonio Bay Study

- a. Kassie Crow, USGS, presented an update on the ongoing work evaluating sediment and nutrient loads into the bays. USGS collects periodic water quality and nutrient samples and estimates suspended sediment concentrations using the ADVN backscatter tool. Sampling has been ongoing since 2013 and 4 sampling events have occurred this year. Ms. Crow gave an update regarding how Hurricane Harvey affected the project. She indicated water entered the device and damaged the wiring. Overall, the install was still intact and USGS was able to repair and

redeploy the tool. The surrogate model is complete and can create a continuous record of sediment concentrations. USGS will make the values from the model available on the USGS website in real-time, as well as continue sampling to refine the model. USGS also plans to use the model and data to try and assess unaccounted flow. A project goal is to account for separate contributions from the Guadalupe and San Antonio Rivers upstream of the bayou system.

- b. Vice-Chair Wassenich asked about the timeline of the project. Ms. Crow replied that the study has a one year extension through August 2018.

3) Key Estuarine Faunal Species

- a. Dr. Lindsay Scheef, University of Texas Marine Science Institute, presented the study on drivers of blue crab and white shrimp populations at various time scales. The research utilizes previously collected data from a variety of sources. The study detected lag effects on the abundances of focal species for predators, water temperature, salinity, and river discharge. Blue Crab had a two-year lag time and white shrimp had a one-year lag time. Currently, the team is running new models to investigate seasonal differences aligned with TCEQ standards. Dr. Scheef is updating the model to accommodate inflow scenarios for predicting population changes. Dr. Scheef explained some model adaptations, including eliminating predator and intraspecific effects to simplify the model structure. The project will be extended through August 2018.
- b. Vice-chair Wassenich asked to clarify the source of the temperature data. Dr. Scheef replied that the temperature is the water temperature where the trawling occurred. Sam Vaughn, BBEST, asked why Dr. Scheef included salinity data as a factor since it is tied to inflows. Dr. Scheef replied that the inflow alters salinity and the temperature in the bay system which creates some cross-correlation. In some cases, salinity is a better predictor than inflow, so Dr. Scheef will keep those parameters separate in the model. Mr. Vaughn asked about isolating the inflow parameter to align with TCEQ standards. Dr. Scheef emphasized that freshwater inflows into the bays will be the focus, rather than salinity.

Texas Comptroller of Public Accounts Presentation: Impact of Federal Listing of Freshwater Mussels as Endangered or Threatened Species

Ms. Kimberly Horndeski, Texas Comptroller of Public Accounts (Office), gave a presentation about the Office's efforts to fund research on several Texas freshwater mussels that are candidates for federal listing. There is a 12-month finding period during which the researchers identify key issues causing mussel decline in several Texas rivers. The goal is to ensure that the National Fish and Wildlife Service has accurate information. If listing does occur, the Office will help work for cost-effective compliance and assist stakeholders with voluntary conservation measures. Ms. Horndeski also explained the funded research being done currently, including captive propagation and tolerance studies. The Freshwater Mussel Work Group holds meetings monthly to inform stakeholders regarding potential listing.

Texas Water Development Board Next Steps/Future Environmental Flow Studies

Dr. Carla Guthrie, Texas Water Development Board (TWDB), gave an update about potential funding for future environmental flow studies. TWDB funded adaptive management studies for the past two bienniums. In the past, each BBASC had a set amount of funding and the BBASC groups proposed priority projects from their respective work plans. TWDB was allocated 2 million dollars for the baseline budget for biennium FY2018-2019. From this funding, \$500,000 is allocated for internal projects and \$1.5 million will be for the environmental flows adaptive management process. TWDB is not restricting the projects to the five basins that have been funded in the past two bienniums and there will not be a set amount of money per basin. TWDB will publish one Request for Qualification, rather than separating by basin. Each BBASC group will prioritize projects and TWDB will give preference during the scoring process. TWDB will attempt to balance the funding throughout the basins.

Dr. Guthrie asked that each group submit 5 priority projects to TWDB in order of priority. The groups will also submit a title, short description, and expected cost for each project. The funding is not limited to BBASC groups, but could be allocated to other entities or other areas of the state. Most funded projects must be completed in the biennium, so TWDB is attempting to expedite the contracting process to allow for a longer study period. TWDB asked groups to submit projects by October 6, 2017. If a contract is through a government agency or university, the funding can be extended past the biennium up to one year. Priority will be given to projects that include more than one basin area and for projects that have matching dollars from other entities. TWDB will limit most projects to \$75,000, except for multi-basin projects which will be considered for up to \$200,000. The GSA BBASC appointed a subcommittee including BBASC and BBEST members to identify priority projects and to create a document to submit to TWDB. The proposal will be voted on by the full BBASC before it is submitted by email. Several members proposed potential projects for funding, such as a Rangia clam study and a marsh dynamics study in San Antonio Bay.

Set Next Meeting Date, Time, and Location

Chair Scott stated that the next meeting will be an email meeting with a vote to approve priority projects.

Agenda Items for Future Consideration

There were no future agenda items discussed.

Public Comment

No public comments were made at this time.

Adjourn